

Sony AV-3650 Video Recorder

Sony AV-3650 ½ " open reel video tape recorder, capable of editing using a capstan servo.

From the Product Literature and Service Manual



The AV-3650 is a compact, portable EIAJ type 1 video tape recorder with a capstan servo electronics editing system, as well as many other special features. For recording, it has manual level controls for both video and audio signals in addition to SONY-MATIC fully automatic gain controls. Two separate illuminated level meters are on the front panel for easy level adjustment. The capstan servo, roll free, electronic editing system, is now featured in this compact, portable machine. The playback signal from the recorded tape is locked in to the incoming sync or composite signal by the capstan servo system so that the editing may be accomplished without disturbing the flow of vertical sync. Audio dubbing is another feature for recording which works for audio after recording without erasing the video signal. For playback, the AV-3650 features high resolution, sharp picture with variable slow motion, and stop motion modes. The RF output meter, for your best playback results, is on the front panel to indicate maximum RF signal output. The optional RF modulator, easily attached, works to playback picture and sound through the antenna terminal of any regular TV Set. The AV-3650 is beautifully designed, portable video tape recorder with full features for recording and playback. It is ideal for any video tape application of educational, industrial, government, or professional users.



SECTION 1 GENERAL DESCRIPTION

1-1. INTRODUCTION

The SONY Model AV-3650 is a video tape recorder based on EIAJ standards and incorporates the following features.

1. Audio and video recording levels can be controlled automatically or manually by the setting of the AGC/MANUAL switch. In the AGC position, the SONY-MATIC recording system assures perfect recording with very little effort. Audio and video level meters are provided for setting levels manually.
2. A capstan servo mechanism is employed for increased stability.
3. Resolution is more than 300 lines.
4. A still playback picture can be obtained by setting the Function Selector to PAUSE. Slow motion tape speed can be varied by turning the SLOW SPEED control.
5. New video and audio may be added or inserted into a previously-recorded tape in the playback mode. Editing is done electronically with the use of the capstan servo system.

6. A SKEW control adjusts tape tension in the play-back mode. The tracking control regulates video-head tracking. The TRACKING meter indicates tracking condition.
7. With the use of a SONY RF Unit (available as an optional accessory) the recorded tape can be viewed on a conventional TV screen.

1-2. SPECIFICATIONS

Type: EIA-Japan type-1 video tape recorder

Video recording system: Rotary two-head helical scan im recording.

Recording signal: EIA standards or equivalent

Video input: 0.5 - 2 V (p-p), 75 ohms, sync negative, unbalanced

Video output: 1.0 V (p-p), 75 ohms, sync negative, unbalanced

Resolution: Better than 300 lines

Video signal-to-noise ratio: Better than 40 dB

Audio input:

MIC -65 dB, 600 ohms, unbalanced

AUX 0 dB, 100 k ohms, unbalanced

TV -20 dB, 100 k ohms, unbalanced

Audio output: 0 dB, 10 k ohms, unbalanced

Frequency response: 80- 10,000 Hz

Audio signal-to-noise ratio: Better than 40 dB

RF output: 80 dB, 75ohms (when RF Unit is installed)

Tape speed: 7.5 ips (19.05 cm/s) plus/minus 0.2%

Slow speed: 1/5 - 1/15 of normal speed

Wow and flutter: Less than 0.2 %

Recording time: More than 60 minutes with SONY V-32 Tape

Rewind time: Within 7 minutes for SONY V-32 Tape

Ambient temperature: 32 degrees F-105 degrees F

Power requirements: 117 V ac plus/minus 10%, 60 Hz plus/minus 0.5%

Power Consumption: 70 watts

Dimensions: 17-5/16" (W) x 9-5/16" (H) x 15-11/16" (D)

Weight: 41 lb, 14 oz

Accessories supplied:

Reel, RH-7 V

Ac Power cord

SONY Video Tape, V-30

8-pin plug

SONY oil

Head cleaner set

Splicing tape

Polishing cloth